

1. A liquid ejection recording head for effecting recording by ejecting first liquid and second liquid which is a different kind of liquid through different ejection outlets, while bi-directionally scanning a recording material in a scanning direction, comprising:

10

15

20

25

wherein said first ejection outlet array

5

10

15

25

5. An apparatus according to Claim 1, wherein the ejection outlet arrays of said first ejection

5

10

15

20

25

10. An apparatus according to Claim 9, wherein said substrate has a crystal face orientation of $\langle 100 \rangle$.

10

15

20

25

15. A liquid ejection apparatus comprising a

carriage for carrying said liquid ejection recording head as defined in Claim 1.

16. A liquid ejection recording head for
5 effecting recording by ejecting first liquid and
second liquid which is a different kind of liquid
through different ejection outlets, while bi-
directionally scanning a recording material in a
scanning direction, comprising:
10 an orifice plate provided with a plurality of
ejection outlet arrays each having a plurality of
ejection outlets arranged at a predetermined intervals
in a direction different from the scanning direction;
an element substrate having energy conversion
15 elements, disposed corresponding to the ejection
outlets of said orifice plate, for ejecting liquid,
liquid supply paths for supplying the liquid to said
ejection outlet arrays of said orifice plate, and a
driving circuit for driving said energy conversion
20 elements; and
wherein said ejection outlet arrays include a
first ejection outlet array for ejecting second
liquid, a second ejection outlet array for ejecting
first liquid, a third ejection outlet array
25 for ejecting the first liquid and a fourth ejection
outlet array for ejecting the second liquid arranged
in the order named in the scanning direction, and

5 17. An apparatus according to Claim 16, wherein
said energy conversion elements are electrothermal
transducer elements for generating thermal energy
for ejecting liquid from said ejection outlet.

15

25